(1) பக்கங்களின் எண்ணிக்கை 10

(2) புதுக்கித் திருப்பிய நாள் அக்-89

(3) ஆதாரங்குறிப்பவர் சுருக்கொப்பம்

தமிழ்நாடு ஆவணக் காப்பகம்.

தமிழ்நாடு அரசு

நிலாதுப்பணித்துறை

அரசாணை எண். 1563.W.

மு. கோப்புத் தாள் எண்.

அச்சகம்

~~கலவகை~~

நாள் : 6.6.1890.

~~நகல்~~.

மடிக்கவோ கண்டபடி கையாளவோ கூடாது

ஆவண கா-1—18,006—15-6-87.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Military Works.

READ—the following paper :—

From Colonel H. SMALLEY, R.E., Superintending Engineer, III Circle, to the Chief Engineer, Public Works Department, dated Bellary, 23rd May 1890, No. 411.

With reference to para. 2 of G.O., No. 745 W., dated 7th March 1890, instructing me to sanction a survey establishment for the Bellary Water-supply Project, I have the honor to report that on my representation, the Superintending Engineer, Madras Command, Military Works, has expressed his willingness to take over the project in question by his department. The Executive Engineer, Bellary Division, has accordingly been requested to make over it to the Executive Engineer, Bangalore Division, Military Works.

ORDER—dated 6th June 1890, No. 1563 W., Public Works.

Approved, and communicated to the Military Department.

(True Extract.)

Captain, R.E.,
Under-Secy. to Govt., P.W.D.

To the Superintending Engineer, III Circle.
" Examiner, Public Works Accounts.
" Military Department.
" Local and Municipal Department.

Exd. W. J. Lewis.
Spare Copies

BUILDINGS AND ROADS.
MILITARY WORKS.

Govt. of {1890} Madras.

PUBLIC WORKS.

Dated June, 6th.

Recd. *Encl.*

G.O., 6th June 1890, No. 1563 W.

JUNE.

Water-supply Project, Bellary

The proposal to transfer the — to the Military Works Department approved, and communicated to the Military Department.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads.
Military Works.

READ—the following papers :—

From H. ST. A. GOODRICH, Esq., Collector of Bellary, to the Secretary to Government, Public Works Department, dated Bellary, 11th January 1890, Ref. on Mis. Reg. No. 19/56 of 1890.

I have the honor to observe that from G.O., 29th October 1889 (No. 521 I., Public Works), the Government has declared its acceptance of the Chief Engineer's deliberate opinion that the Tungabhadra channel scheme is one which it is not advisable to undertake.

2. G.O., 17th May 1889 (No. 1317 W., Public Works), orders the consideration of the Bellary Cantonment Water-supply Committee's report to be deferred pending the decision upon the prospects of the Tungabhadra channel scheme.

3. The population of Bellary, about 60,000, depends for its supply of potable water upon the Fort Ditch and Mainwaring tank and a very few wells. The water of both the Fort Ditch and Mainwaring tank is condemned as suspicious (*vide* enclosure).

4. On receipt of G.O., 29th October 1889, above referred to, I requested the Superintending Engineer to ascertain the difference of level between the sill of the Mainwaring tank escape and the weir of the Fort Ditch; the former is found to be 29 feet lower than the latter; the Mainwaring tank can therefore readily be filled through the Fort Ditch if the supply to the Fort Ditch be rendered sufficiently copious. A pipe laid by the side of the Railway line would probably be the best method of carrying the excess water from the one to the other reservoir—a distance along the curve of the Railway line of a mile and a half.

5. There is no question as to the facts; the Military and Municipal authorities acknowledge that it is an urgent matter that the quality and quantity of the Bellary water-supply should be improved, and that such improvement can easily be effected by increasing the storage capacity of Alipur and Fischer's tanks, and protecting the channels which carry water thence to the Fort Ditch and the surface of drainage channel which feeds Mainwaring tank.

6. I am very strongly of opinion that the use of these reservoirs as dipping wells should cease and that water should be drawn by windlass from a stage; but this is a question of detail and my repeated advice has failed to influence the Military or Municipal authorities in favor of this change.

7. Colonel Smalley has an officer under his orders here, Mr. Russell, who is believed to be excellently qualified to investigate and report upon the practicability of the completion of the works which supply the Fort Ditch, which have been described in Colonel Smalley's annexure to the report of the committee whose consideration the Government has deferred, and the object of my present letter is to suggest that a report from him be called for.

Enclosures.

From Surgeon-Major W. O'HARA, District Surgeon, Bellary, to the Chairman, Municipal Council, Bellary, dated 12th February 1889, No. 171.

Has the honor to forward chemical analysis of potable water from the Fort Ditch and Mainwaring tank, and to remark that the suspicious character of the water is due to the large proportion of albuminoid ammonia contained therein. This ingredient is derived from organic substances and would not occur in the quantity noted if the catchment areas of feeding channels and reservoirs were freed from animal pollution.

Chemical Examiner's Report.

	A. Mainwaring Tank.	B. Fort Ditch.
Total solids, grains per litre	0·170	0·210
Volatile solids, do.	0·050	0·050
Chlorine, do.	0 011	0·014
Total hardness, Clark's scale	3°·500	3°·500
Permanent hardness, do.	1°·750	1°·050
Free ammonia, mlgms. per litre	0·280	Trace.
Albuminoid ammonia, do.	0·400	0 480
Nitre acid do. (as ammonia)	0·300	0·375
Apparent quality of the water from the results obtained on examination.	Suspicious.	Suspicious.
Remarks	*Nil.*	

Note.—Taken after the monsoons; the water is far worse than this during the greater part of the year.

(Signed) H. St. A. GOODRICH,
Collector.

Copy of letter from A. S. RUSSELL, Esq., Executive Engineer, Bellary Division, to the Superintending Engineer, III Circle, dated 5th February 1890, No. 4363.

With reference to your endorsement No. 3215, dated 1st instant, on memo. No. 401 C., dated 22nd January 1890, from the Chief Engineer, I have the honor to say that I am of opinion that the main requirements of the Bellary water-supply are —

(1) Increase of area of gathering ground so as to obtain a better supply.
(2) Increase of storage capacity of reservoirs.

2. Both these objects are feasible, but will require a good deal of levelling and surveying before a proper scheme can be drawn up and an estimate made.

3. An increase of catchment basin can be made by impounding the run-off from a considerable portion of the Copper Mountain range that at present escapes directly to the streams.

4. An increase of storage capacity can be made by raising the F.T.L. of the Alipur tank by 2 feet, and by forming a flood reservoir in a favorable site near the foot of the Copper Mountain range.

5. It would not be safe, unless a large outlay was incurred on the bund, to raise the Alipur tank by more than 2 feet. As regards the formation of a new reservoir, I have reason to believe, from inquiries I have made and from inspection of the map, that a considerable stream draining the Copper Mountain and at present not utilised can be dammed at a favorable site. I will ride over the country and look into this matter myself when I have a little spare time to do so. If investigation shows that this is not the case, additional storage must be otherwise obtained.

6. I regard it as useless to spend money in raising the F.T.L. of Fischer's tank. This tank is very shallow and is practically useless as a reservoir for town supply, nor can it be converted into a deep reservoir except at great cost owing to the flatness of the country.

7. A better water-supply and sufficient storage having been obtained, filtering of the water at the reservoirs and conveying it therefrom in pipes to the Fort Ditch will render it possible to give a supply of good water at all times to the town of Bellary.

8. As a survey will have to be made, several miles of levels to be taken, and the capacities of the various reservoirs ascertained by contours, a special establishment must be given if a scheme is to be worked out in detail by this department. The water-level in the reservoirs is now comparatively high, and it will be advisable therefore to defer the commencement of surveying operations until 1st June next. A surveyor of some experience and intelligence will be required. The following is the survey establishment I consider necessary :—

One Surveyor on Rs. 100 per month for 6 months.
Five Lascars on Rs. 7 per month for 6 months.

No. 3446.

Forwarded to the Chief Engineer, Public Works Department, as called for in his memo. No. 401 C., dated 22nd January 1890. The Superintending Engineer concurs generally with the views expressed by Mr. Russell. A sum of Rs. 1,000, inclusive of all contingencies, should be placed at the disposal of this department on 1st April 1890 for the investigation of the scheme as sketched out by the Executive Engineer, Bellary Division.

Bellary,
20th February 1890.

(Signed) H. SMALLEY, Colonel, R.E.,
Superintending Engineer, III Circle.

Order—dated 7th March 1890, No. 745 W., Public Works.

Mr. Russell's report will be communicated to the Collector of Bellary through the Revenue Department.

2. The proposals in para. 8 of Mr. Russell's letter are approved. The required survey establishment may be sanctioned by the Superintending Engineer as a minor work under para. 186, Public Works Code.

(True Extract.)

(Signed) R. R. E. DRAKE-BROCKMAN, Lt.-Col., R.E.,
Ag. Joint Secy. to Govt., P.W.D.

To the Superintending Engineer, III Circle.
" Revenue Department.
" Local and Municipal Department.
" Military Department.

Exd. J. Moses.
Spare Copies

BUILDINGS AND ROADS.
MILITARY WORKS.

Govt. of {1890} Madras.

PUBLIC WORKS.

Dated March, 7th.

Recd. *Encl.*

G.O., 7th Mar. 1890, No. 745 W.

1563W

MARCH.

Water-supply of Bellary

Report of Mr. Russell, Executive Engineer, on the main requirements of the —— communicated to the Collector, and the survey establishment required by Mr. Russell to be sanctioned by the Superintending Engineer, III Circle.

100

No. 411

Superintending Engineer's Office,
3RD CIRCLE.
Bellary 23 May 1890.

FROM Colo H. Smalley RE
SUPERINTENDING ENGINEER,
IIIRD CIRCLE.

To THE Chief Engineer
R.W. Department
Madras

Sir,

Enclosures.

With reference to para 2 of G.O. No. 745 W dated 7th March 1890, instructing me to sanction a survey establishment for the Bellary water supply project, I have the honor to report that on my representation, the Superintending Engineer Madras Communications Military Works, has expressed his willingness to take over the project in question by his Department. The Executive Engineer Bellary Division has accordingly been requested to make over it to the Executive Engineer Bangalore Division, Military works

I have the honor to be
Your most Obedt Servt
H Smalley Colo RE
Superintg Engineer RE

From, PWC No 4948

The Superintending Engineer,
IIIrd Circle,
Bellary.

To,
The Chief Engineer &
Pr Depatty
Madras

Dated 23 May 1890.
Received 28

Enclosures.

No. 411

Subject.

Water
Bellary Supply projects

Reporting that the Superintg Engineer Madras Commandg Military works has expressed his willingness to take part by his Department

Fo. No. 745 W } 7.3.90
" 1317 W } 17.5.90
" 5218 } 29.10.90
" 544 W } 7.11.90

No. 1563 W dy 6th June 1890

A

Approved, and communicated to the Military Department.

2.6.90

3.6.90

S.G. III Circle
Chief Engineer
Military Dept
L. & M. Dept

P.W.C. V.
No 3. VI
No 3. VI

4968.

Govt. of [18] Madras.

PUBLIC WORKS.

Dated

Read. Encl.

G.O., 6th June 1890 No. 456 & 457.

Water Supply Project
Bellary.

Sanction accorded to the proposal submitted in the — to the Military Works Dept. approved and communicated by the Military Department.

10/4

2/6/6.